

What is claimed:

1. A device for managing network traffic flow, the device comprising:  
a processor, the processor configured to  
5 receive network traffic content,  
determine whether a protocol of the network traffic content matches  
a prescribed protocol of network traffic content that could contain content  
desired to be detected, and  
store the network traffic content in a stack when the protocol of the  
10 network traffic content matches the prescribed protocol.

2. The device of claim 1, wherein the processor comprises a general  
purpose processor.

- 15 3. The device of claim 1, wherein the special purpose processor comprises  
an ASIC processor.

4. The device of claim 3, wherein the ASIC processor is a semi-custom ASIC  
processor.

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5. The device of claim 3, wherein the ASIC processor is a programmable  
ASIC processor.

6. The device of claim 1, wherein the processor is further configured to send the network traffic content to a user when the protocol of the network traffic content does not match the prescribed protocol.

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7. The device of claim 1, further comprising the stack.

8. The device of claim 7, wherein the stack is implemented in the processor or in another processor.

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9. The device of claim 8, wherein the stack is configured to store network traffic content in accordance with the protocol of the network traffic content.

10. The device of claim 1, further comprising a memory;

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wherein the processor is further configured to

send at least a portion of the network traffic content to the memory when the protocol of the network traffic content matches the prescribed protocol,

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send a copy of the network traffic content to a module, the module configured to determine whether the network traffic content contains content desired to be detected, and

assemble the at least a portion of the network traffic content with  
the rest of the network traffic content, and transmit the network traffic  
content to a user when it is determined that the network traffic content  
does not contain the content desired to be detected.

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11. The device of claim 10, further comprising the module.

12. The device of claim 11, wherein the module is implemented in the  
processor.

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13. The device of claim 11, wherein the module is implemented in an ASIC  
processor.

14. The device of claim 1, further comprising a memory;

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wherein the processor is further configured to

flag the network traffic content when the protocol of the network  
traffic content matches the prescribed protocol,

send the flagged network traffic content to the memory,

send a copy of the network traffic content to a module, the module

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configured to determine whether the network traffic content contain  
content desired to be detected, and

transmit the network traffic content to a user when it is determined that the network traffic content does not contain the content desired to be detected.

5 15. The device of claim 14, further comprising the module.

16. The device of claim 15, wherein the module is implemented in the processor.

10 17. The device of claim 15, wherein the module is implemented in an ASIC processor.

18. The device of claim 1, wherein the content desired to be detected is selected from the group consisting of a virus, a worm, a web content, a Trojan agent, an email spam, and a packet transmitted by a hacker.

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19. A method for managing network traffic flow, the method comprising:  
receiving network traffic content;  
determining whether a protocol of the network traffic content matches with  
a prescribed protocol of network traffic content that could contain content desired  
to be detected; and

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storing the network traffic content in a stack when the protocol of the network traffic content matches the prescribed protocol.

20. The method of claim 19, wherein the network traffic content is stored in  
5 the stack in accordance with the protocol of the network traffic content.

21. The method of claim 19, further comprising:

sending at least a portion of the network traffic content to a memory when the protocol of the network traffic content matches the prescribed protocol;

10 sending a copy of the network traffic content to a module, the module configured to determine whether the network traffic content contain content desired to be detected, and

assembling the at least a portion of the network traffic content with the rest of the network traffic content, and sending the network traffic content to a user  
15 when it is determined that the network traffic content does not contain the content desired to be detected.

22. The method of claim 19, further comprising:

flagging the network traffic content when the protocol of the network traffic  
20 content matches the prescribed protocol;

storing the flagged network traffic content in a memory;

sending a copy of the network traffic content to a module, the module configured to determine whether the network traffic content contain content desired to be detected, and

transmitting the network traffic content to a user when it is determined that  
5 the network traffic content does not contain the content desired to be detected.

23. A device for managing network traffic flow, the device comprising:

a first processor, the first processor configured to

receive network traffic content,

10 send at least a portion of the network traffic content to a memory,

and

send a copy of the network traffic content to a second processor,  
the second processor configured to determine whether the network traffic  
content contains content desired to be detected.

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24. The device of claim 23, wherein the first processor is further configured to  
assemble the at least a portion of the network traffic content with the rest of the  
network traffic content, and cause the network traffic content to be transmitted to  
a user when it is determined that the network traffic content does not contain the  
20 content desired to be detected.

25. A method for managing network traffic flow, the method comprising:

receiving network traffic content;  
storing at least a portion of the network traffic content to a memory; and  
sending a copy of the network traffic content to a processor, the processor  
configured to determine whether the network traffic content contains content  
5 desired to be detected.

26. The method of claim 25, further comprising assembling the at least a  
portion of the network traffic content with the rest of the network traffic content,  
and transmitting the network traffic content to a user when it is determined that  
10 the network traffic content does not contain the content desired to be detected.

27. A device for managing network traffic flow, the device comprising:  
a first processor, the first processor configured to  
receive network traffic content,  
15 flag the network traffic content,  
send the flagged network traffic content to a module, the module  
configured to pass unflagged data to a user and prevent flagged data from  
being sent to the user, and  
send a copy of the network traffic content to a second processor,  
20 the second processor configured to determine whether the network traffic  
content contains content desired to be detected.

28. The device of claim 27, wherein the first processor is further configured to transmit the network traffic content to a user when it is determined that the network traffic content does not contain the content desired to be detected.

5 29. The device of claim 27, wherein the module comprises a memory, a buffer, or at least a portion of a processor.

30. A method for managing network traffic flow, the method comprising:  
receiving network traffic content;  
10 flagging the network traffic content;  
sending the flagged network traffic content to a module, the module configured to pass unflagged data to a user and prevent flagged data from being sent to the user; and

15 sending a copy of the network traffic content to a processor, the processor configured to determine whether the network traffic content contains content desired to be detected.

31. The method of claim 30, further comprising transmitting the network traffic content to a user when it is determined that the network traffic content does not  
20 contain the content desired to be detected.